Application No. 09/937,460

Paper Dated: March 13, 2006

In Reply to USPTO Correspondence of October 12, 2005

Attorney Docket No. 3135-011614

REMARKS

Claims 22-42 were pending in this application. Claims 35, 38 and 41 are cancelled and claims 22, 36 and 39 are amended by this Amendment. No new subject matter is believed to have been added by these amendments. Therefore, claims 22-34, 36, 37, 39, 40 and 42 remain in this application.

35 U.S.C. § 103 Rejections

Claims 22, 27, 32 and 36 stand rejected under 35 U.S.C. § 103(a) for obviousness based upon U.S. Patent No. 4,175,860 to Bacus (hereinafter "the '860 Bacus patent") in view of U.S. Patent No. 4,741,043 to Bacus (hereinafter "the '043 Bacus patent"). Claims 23, 30 and 37 stand rejected under 35 U.S.C. § 103(a) for obviousness based upon the '860 Bacus patent in view of the '043 Bacus patent as applied to claims 22 and 36, and further in view of U.S. Patent No. 6,297,825 to Madden et al. (hereinafter "the '825 Madden patent"). Claims 24-26, 28, 29, 31, 33-35 and 38-42 stand rejected under 35 U.S.C. § 103(a) for obviousness based upon the '860 Bacus patent in view of the '043 Bacus patent as applied to claims 22 and 36, and further in view of U.S. Patent No. 5,134,662 to Bacus et al. (hereinafter "the '662 Bacus patent"). In view of the above amendments and the following remarks, the Applicant respectfully requests reconsideration of these rejections.

As defined by independent claim 22, the present invention is directed to a device for selecting and recording an image of an irradiated or emissive structure of DNA, RNA or protein with an improvement comprising an object holder for positioning the structure, a mirror for reflecting an image of the structure, at least one stationary mirror disposed between the structure and the camera, and a displaceable camera for selecting a part of the image from the reflected image of the structure.

As defined by independent claim 36, the present invention is further directed to a method for selecting an image to be recorded with a camera which forms a part of an irradiated or emissive structure of DNA, RNA or protein. The method comprises the steps of A) placing the DNA, RNA or protein structure in stationary position; B) reflecting an image of the structure with a mirror, and C) selecting with a displaceable camera a part of the image of the structure to be viewed from the reflected image. In order to reflect an image as according to step B), the mirror is rotated around a single rotation axis such that a selected

part of the image is reflected by the mirror to a viewing area and the part of the image to be reflected to the viewing area is also reflected by at least one additional stationary mirror as well as by the mirror.

The '860 Bacus patent discloses an apparatus for performing automated classification of cells. Referring to Fig. 1 of this patent, the apparatus includes a lens (12), a beam splitter (20), and a camera (24). The '043 Bacus patent is directed to a system for analyzing and quantifying the DNA in specimen cells by image analysis using pattern recognition, and is provided by the Examiner as a teaching of recording an image of an irradiated or emissive structure of DNA and placing the DNA structure in a stationary position for cellular image analysis.

With reference to amended independent claim 22, the '860 Bacus patent and the '043 Bacus patent do not teach or suggest an additional, stationary mirror positioned between the structure and the camera. The '860 Bacus patent discloses an apparatus that includes a stage 10, a mirror 28 and a camera 32. The Examiner contends that beam splitter 20 is equivalent to an additional mirror. However, a beam splitter and a mirror are not equivalent optical devices. A beam splitter is an optical device that splits a beam of light into two or more beams and is usually constructed from glass prisms. While some beam splitters can be formed from mirrors, the function of a beam splitter is to split a beam of light into two or more beams, whereas the sole function of a mirror is to reflect light.

The '662 Bacus patent does not cure this deficiency. The '662 Bacus patent is directed to an apparatus for performing automated classification of cells and other microscopic specimens and is provided by the Examiner as a teaching of a rotatable beam splitter.

Method claim 36, amended to include that the mirror is rotated around a single rotation axis such that a selected part of the image is reflected by the mirror to a viewing area and the part of the image to be reflected to the viewing area is also reflected by at least one additional stationary mirror as well as by the mirror, is also deemed allowable over the prior art of record for the same reasons set forth above.

Furthermore, pursuant to MPEP § 2141.01(a), in determining whether a prior art reference is analogous, it should be determined (1) whether the art is from the same field of endeavor, and (2) if the reference is not within the field of the inventor's endeavor,

whether the reference is still reasonably pertinent to the particular problem with which the inventor is involved. In determining whether the reference is reasonably pertinent to the problem the invention intends to solve, the purpose of both the invention and the prior art are important. Thus, if a reference disclosure has the same purpose as the claimed invention, an inventor may well have been motivated to consider the reference; on the other hand, if it is directed to a different purpose, the inventor would have less motivation to consider it.

Here, the field of technology of the Bacus patents is completely different from the present invention. The field of technology of the present invention relates to the selection and recording of biotechnical samples (i.e., DNA/RNA) of a completely different size and scale than the cellular analysis techniques and apparatus disclosed by the Bacus patents. Applicant respectfully submits that one skilled in the art would not look to the cellular analysis structure of the Bacus patents when seeking to solve the problem associated with selecting and recording images of DNA, RNA or proteins. For example, the '043 Bacus patent discloses a technique for observing and recording visual information that is clearly more detailed requiring a microscope for measurements as to the area of microns (see, for example, column 4, line 34; column 4, line 52; column 5, line 37; column 5, line 45 and column 5, lines 61-62). On the other hand, the present invention utilizes at least a millimeter scale of selecting and recording. Accordingly, the scale difference between the two fields of endeavor is entirely too great (at least approximately 10³) for the Bacus patents to be considered reasonably pertinent to the field of the Applicant's endeavor.

For the foregoing reasons, the Applicant believes that the subject matter of amended independent claims 22 and 36 is not rendered obvious by the Bacus patents. Reconsideration of the rejections of claims 22 and 36 is respectfully requested.

Claims 23-34, 37, 39, 40 and 42 depend from and add further limitations to amended independent claims 22 and 36 or a subsequent dependent claim and are believed to be patentable for the reasons discussed hereinabove in connection with amended independent claims 22 and 36. Reconsideration of the rejection of claim 23-34, 37, 39, 40 and 42 is respectfully requested.

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Based on the foregoing amendments and remarks, reconsideration of the rejections and allowance of pending claims 22-34, 36, 37, 39, 40 and 42 are respectfully requested.

Respectfully submitted,

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